

REMARKS

Applicant submits this response to the final rejection dated December 8, 2010 and based on the interview with Examiner Paradiso. Applicant thanks Examiner Paradiso for the constructive nature of the interview.

All the claims, including claims 1 – 5 and 9 – 11, have been rejected as obvious based on United States Patent Number 5,459,980 (Kenney) in view of United States Publication Number US2002/0157355 (“Tampieri”). Claims 6, 12, 15, 17 – 27, and 29 – 32 have been rejected as obvious based on Kenney in view of United States Patent Number 5,752,365 (“Johnson”). Claim 7 has been rejected as obvious based on Kenney in view of United States Patent Number 3,684,614 (“Lemelson”). Applicant requests reconsideration of the pending rejections and favorable examination.

Amendments to the Claims

Applicant amends claim 1 to require that the “first and second sheets” are “ultrasonic welded” together (in part) by “sealing ribs [that] extend between the products,” and that the products “are positioned . . . such the distance between the products is less than the height of the products.” Also, claim 1 now requires the step of “folding longitudinal sides of the sealed first and second sheets upwards; and separating the products into arrays of multiple, connected products, whereby the folded longitudinal sides enhance rigidity of the arrays.” Applicant also amends claim 7 to make it clear that the ultrasonic sealing “comprises co-operation between an ultrasonic welding device and the sealing ribs” and amends claim 9 to require an “ultrasonic sealing device.”

Support for ultrasonic welding is provided in page 6, line 22 to page 7, line 9 and figures 1 – 3. Support for the positioning of the products is provided in figures 1 – 4. Support for folding longitudinal sides is provided in page 7, lines 19 – 25 and figure 4. Page 7, lines 7 – 11 and figure 4 disclose that the products of the array are connected.

Not only is the combination of steps in claim 1 not taught by Kenney or Tampieri, but it would be impermissible to modify Kenney in this regard, as explained below.

It Is Impermissible To Modify Kenney As Stated In The Office Action Because It Would Impermissibly Change A Fundamental Principle Of Operation Of Kenney

Kenney is the primary reference for each of the obviousness rejections, therefore the reasoning of this paragraph applies for each claim.

Kenney is directed to an apparatus and method for producing “non-rectangular” tea bags (Kenney, col. 1, line 38 et seq.) that are “a completely new departure from the prior art.” (col. 3, lines 12 – 13). “This is made possible by using the waste web which surrounds the packages to transport the packages to a removal station in a controlled manner. By surrounding the packages, the web controls closely the position of the packages, which means that they may be presented accurately to the removal means.” (col. 3, lines 22 – 27).

Kenney’s detailed description section further explains the importance of the web (that is, the filter paper waste that is cut away from the tea bag product): “After the web 9 has been cut into individual bags, the bags are carried out of the cutting device 13 both by the momentum imparted by the cutting rollers 16, 17 and by the waste web material which still surrounds the bags and is placed in tension by the suction device 15.” (col. 8, lines 13 – 17). Kenney makes it clear that forming its product within a web that is cut away, but that uses the web to carry its products through a stage of its process, is a fundamental principle its operation.

Modifying Kenney to satisfy the limitations of claim 1 would impermissibly change the object and fundamental principle of Kenney. For example, Kenney could not modified to achieve “an array of removable enclosures” nor “separating the products into arrays of multiple, connected products.”

Further, Kenney’s fundamental principle would have to be impermissibly discarded to satisfy the limitations of, for example:

claim 8: “the packaged products stay attached to each other, but can be easily separated,”

claim 12 : “the sealed areas between the products are weakened, such that the packaged products can be easily separated” and

claims 15 and 26, each of which recite a “bandolier.”
Each of the above limitations cannot be met without changing a fundamental principle of operation of Kerrey.

Response To The Office Action’s Reasoning For Rejecting Independent Claims 1, 9, And 11

In a preceding response, Applicant argued that each of claims 1, 9, and 11 requires “a planar first sheet” on which the products are positioned and that Tampieri discloses a lower sheet that is pre-shaped. The pending office action explains the Examiners holding that the claims require on a “‘pre-shaped second sheet’ – not necessarily a lower sheet.” (Office Action, para. 8) As explained below, this is error.

Claim 1 recites “positioning the products on a planar first sheet which is continuously moved in a transport direction” and “covering the products by a second sheet.” The plain language of claim 1 can only be interpreted to mean that the “first sheet” is the lower sheet and it is planar.

Also, the office action states that “the rejection used the teaching of Tampieri to show a pre-shaped film to modify the invention of Kenney et al by pre-forming one of the sheets to fit the product . . . This is not the same as using the entire invention of Tampieri to modify the invention of Kenney” (Office Action, para. 8) (internal quotations omitted). This also is error, as “Ascertaining the differences between the prior art and the claims at issue requires interpreting the claim language, and *considering both* the invention and *the prior art references as a whole*.” (M. P. E. P. § 2141.02) (emphasis added).

In this regard, Tampieri when considered as a whole discloses placing products in it’s *lower* pre-shaped blisters before being sealed by an upper sheet. In Tampieri the pre-shaped sheet (to the extent the blister pack of Tampieri constitutes a pre-shaped sheet) is the lower sheet, which would rest on the supporting drums and require special adaptation of the transport equipment to support the moving pre-shaped sheet without damaging the pre-formed shape, which would discourage modifying Kenney to use the blister pack of Tampieri. Further,

Tampieri neither teaches nor suggests turning its blister pack upside down, placing the products on a moving flat sheet, and covering them with a synchronized moving pre-shaped sheet.

Accordingly, Applicant submits that the office action fails to provide a prima facie case of obviousness of claims 1, 9, and 11. The same rationale applies to independent claim 10.

Lemelson Does Not Teach Ultrasonic Welding As Claimed

Claim 1 requires “ultrasonic sealing the first and second sheets together near the outer edges of the individual products or grouped products by a sealing device”. Amended claim 7 requires that “ultrasonic sealing step comprises co-operation between an ultrasonic welding device and the sealing ribs” Amended claim 15 states that the transverse seals are “ultrasonic welded”. The pending office action states that Lemelson discloses that packages are “welded . . . by heat or ultrasonic welding.” (Office Action, para. 4).

Lemelson, however, should be interpreted to teach heat sealing rather than ultrasonic welding. Lemelson’s reference to the radio frequency encompasses a large range of wavelengths that (according to some definitions) encompass typical ultrasonic welding frequencies near the range’s lower limit. The radio frequency range also encompasses microwave frequencies, which are well known for heating. But the fairest reading of Lemelson is that it teaches radio frequency radiation to heat the drum, which then heat welds the plastic:

[L]and portions in the opposite drum to compress the flat tubular formation together and weld same as the result of heating the drums and/or by radio frequency energy *applied to the drum land-like formations which serve as electronic heat-sealing dies.*” (Lemelson, col. 4, lines 43 – 52) (emphasis added).

During the interview, the breadth of the term “ultrasonic welding” was discussed. Applicant submits that the well-established definition of ultrasonic welding precludes encompassing indirect heating of a tool for conventional heat welding, as taught by Lemelson.

The *Injection Molding Handbook* (D.V. Rosato et al., Kluwer Academic Publishers, 2000) explains regarding ultrasonic welding that “[w]elding occurs when high-frequency (20 to 40 khz) vibrational energy is directed to the interface between two parts, creating localized

molecular expansion, which causes the plastic to melt." (*Id.*, at 950-951). Also, under "Thermal Bonding", Ultrasonics", the *Injection Molding Handbook* states that "[h]igh-frequency sound vibrations transmitted by a metal horn generate friction at the bond area of a thermoplastic part, melting plastics just enough to permit a bond." (*Id.*, at 942).

Finality of the Final Rejection

If the Examiner determines that the pending claims are not patentable, Applicant requests withdrawal of the finality of the pending rejection, which was issued before Applicant's request for an interview was granted.

CONCLUSION

Applicant preserves all prior arguments and does not acquiesce to the findings in the pending rejection.

Based on the foregoing, Applicant submits that the claims recite patentable subject matter. If the Examiner determines that a telephone conversation would advance the prosecution of this Application, he is invited to telephone the undersigned at his convenience.

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